

THE MINERAL INDUSTRY OF COSTA RICA

By David B. Doan

The production of minerals in Costa Rica contributed less than 1% to the Nation's gross domestic product. Mining was governed by Law 6797 of 1982. The Ministerio de Recursos Naturales, Energia y Minas was responsible for the control and development of Costa Rica's mineral resources through the Direccion de Geologia Minas y Hidrocarburos, the Minera Nacional, S.A. (MINASA), and the National Environmental Commission. MINASA coordinated mineral industry activities between Government agencies and the private sector.

The Government-owned Refinadora Costarricense de Petroleo, S.A. (RECOPE) controlled oil-refining operations, but operating companies were mostly privately owned. A 1994 law promoted exploration and production of hydrocarbons through negotiated contracts, good for 3 years plus three 1-year renewal options. Nonrenewable production contracts could last for 20 years before expiration (World Oil, 1994). An "Environmental Action Plan," newly promulgated by the Government, included fines for violations of its management policies.

Production of gold, with silver as a byproduct, was primarily in the Abangares district of the Central Gold Belt of the Tilaran Cordillera in the northwest. The major gold producer was the Tres Hermanos mine, a small underground operation 110 kilometers (km) northwest of San Jose, operated by El Valiente Ascari S.A., a subsidiary of Ariel Resources Ltd. of Vancouver, Canada. Ariel also operated the San Martin underground mine and the Matapalo mill. The company reported that gold production should reach 80,000 ounces annually by the year 2000 (Northern Miner, 1996, p. 12). The El Recio deposit in the Abangares gold mining district, held by Greenstone Resources Ltd., of Canada, was sold to Ariel for shares of Ariel and a net-profits interest of 10%, expandable to 30% after certain conditions were met (Ariel Resources Ltd., 1995). Minera Rayrock Inc., of Canada, continued development of its Bellavista property, northwest of San Jose, and reported reserves of 1,960,000 ounces (about 61,000 kg) of gold. Placer Dome Inc., of Canada, explored in the far northwest near the Nicaraguan border.

Long regarded by many as the "Switzerland of Central America" because of its uninterrupted century of democracy, isolating itself from the wars and upheaval of neighboring countries, Costa Rica became one of the first targets for exploration by foreign companies. More recently, however, beginning in the early 1990's, Costa Rica became a favorite of the international environmental movement, diminishing its attractiveness to mineral exploration and persuading some companies to put their development plans in abeyance (Mining Journal, 1997, p. 296). Gold exploration and development, in

particular, were affected.

In November 1996, Ariel Resources received permission to begin open-pit extraction at the San Martin mine, subject to an early payment of a restoration deposit required by the Government. Minera Rayrock, however, was denied approval of its Environmental Impact Statement submitted for the Bellavista gold project. Rayrock reportedly was disappointed with this action in that it had worked closely with the Government and addressed all of its concerns (Mining Journal, 1996, p. 458).

Taiwan's Kao Chieh Group disclosed plans to proceed with development of a \$15-million manganese mine and mill in Guancaste Province.

Industrial mineral production included cement, clays, diatomite, lime, pumice, salt, sand and gravel, and crushed stone. (See table 1.) Of 13 known diatomite deposits stretching from Liberia to Cartago, only the Loma Camastro deposit, northeast of Liberia, was being mined. About 20% of mined limestone was used to produce aggregate, dimension stone, and lime. Cementfabrik Holderbank AG, a Switzerland-based cement producer, was the largest shareholder (44%) in the Industria Nacional de Cemento S.A. (INCSA), which had about 290 employees. Holderbank also had a 65% interest in the concrete producer Productos de Concreto S.A., San Jose, with 1,160 employees. Limestone was quarried primarily for the use in the manufacture of cement by Cementos del Pacifico S.A. and INCSA. Fertilizers were produced by Fertilizantes de Centro America S.A., the largest producer in Central America. Salt was produced by the solar evaporation of brine, primarily around the Golfo de Nicoya.

Crude oil for domestic refining was imported from Mexico and Venezuela, under the San Jose Petroleum Accords, as well as from Colombia, but most petroleum products were imported from the Netherlands Antilles and the United States. RECOPE operated the country's oil refinery. Cement plants were owned by the Government and by private firms.

Canadian and U.S. companies were involved in a number of gold and silver exploration and mining operations. (See table 2.)

Industria Nacional de Cemento S.A. Foreign investors were encouraged to explore for gold, modernize old mines, open new mines, and to explore for petroleum. The Government expected to continue its improvement of infrastructure and environmental management, as well as divestment of several major state-owned companies.

References Cited

Ariel Resources Ltd., 1995, [Vancouver, British Columbia]: News Releases and quarterly reports, June 30 through August 30, 1995.
Cementfabrik Holderbank, 1992, [Celigny]: 1992 Annual Report, 24 p.
Mining Journal, 1996, Industry in action—Bellavista study not approved: Mining Journal [London], v. 327, no. 8407, December 6, 16 p.
———1997, Central and South America (Supplement)—Mining in Central America: Mining Journal [London] v. 328, no. 8423, April 4, 22 p.
Northern Miner, 1996, Ariel reports boost in gold production: Northern Miner [Toronto], v. 82, no. 9, 18 p.

Major Sources of Information

Instituto Costarricense de Electricidad
Sabana Norte, San Jose, Costa Rica
Telephone: (506) 20-7720; Fax: (506) 20-1555
Minera Nacional, S.A.
Apartado 5298, Zona 1000

San Jose, Costa Rica
Telephone: (506) 53-7555, Fax: (506) 57-0697
Ministerio de Recursos Naturales, Energia y Minas
Direccion de Geologia, Minas y Hidrocarburos
Apartado 10104, Zona 1000
San Jose, Costa Rica
Telephone: (506) 33-2360
Refinadora Costarricense de Petroleo S.A.
Apartado 4351, Zona 1000
San Jose, Costa Rica
Telephone: (506) 33-0333, Fax: (506) 23-2748

Major Publication

Latin American Mining Institute, Washington, DC: Mexico and Central America Investment and Mining Guide; annual.

TABLE 1
COSTA RICA: ESTIMATED PRODUCTION OF MINERAL COMMODITIES 1/ 2/

(Metric tons unless otherwise specified)

Commodity		1992	1993	1994	1995	1996
Cement		700,000	860,000	940,000	990,000	990,000
Clays, common		400,000	400,500	401,000	410,000	410,000
Diatomite		7,500 r/	7,300 r/	7,000 r/	7,000 r/	7,500
Gold	kilograms	250 r/	260 r/	358 r/ 3/	400 r/	500
Iron and steel, semimanufactures		85,000	86,000	87,000	89,000	88,000
Lime		9,000	9,500	9,500	9,800	9,800
Petroleum refinery products	thousand 42-gallon barrels	3,000	4,000	4,000	4,400	4,500
Pumice		8,000	8,000	8,000	8,000	8,000
Salt, marine		30,000 r/	31,100 r/	31,700 r/	32,200 r/	37,000
Silver	kilograms	400	450	450	450	460
Stone, sand and gravel:						
Crushed rock and rough stone	thousand tons	1,000	1,000	1,200	1,300	1,350
Limestone and calcareous materials	do.	1,300	1,500	1,500 r/	1,500 r/	1,500
Sand and gravel	do.	1,100	1,200	1,400	1,500	1,400
Sandstone		650	700	800	850	800

r/ Revised.

1/ Estimated data are rounded to three significant digits.

2/ Table includes data available through Apr. 1997.

3/ Reported figure.

TABLE 2
COSTA RICA: STRUCTURE OF THE MINERAL INDUSTRY FOR 1996

(Thousand metric tons unless otherwise specified)

Commodity		Major operating companies and major equity owners	Location of main facilities	Annual capacity e/
Cement		Industria Nacional de Cemento, S.A. (INCSA) (private, 100%)	Aguas Calientes, Cartago, Cartago Province	425
Do.		Cementos del Pacifico, S.A. (CEMPASA) (subsidiary of Corporacion Costarricense de Desarrollo, S.A., Government, 100%)	Near Colorado, Guanacaste Province	400
Clays		CEMPASA	Tajo Finca, near Platanar, Guanacaste Province	100
Gold	kilograms	El Valiente Ascari, S.A. (Ariel Resources, Ltd., Canada, 100%)	Tres Hermanos mine, Las Juntas, Guanacaste Province	305
Do.	do.	Minera Macona, Ltd. (Equinox Resources, Ltd., 100%)	Santa Clara mine, Puntarenas Province	160
Limestone		INCSA	La Chilena Quarry, near Cartago, Cartago Province	550
Do.		CEMPASA	Cerro Peña Blanca Quarry, Guanacaste Province	300
Petroleum products	thousand 42-gallon barrels	Refinadora Costarricense de Petróleo, S.A. (RECOPE)	Moin Refinery, Limón Province	5,760

e/ Estimated.